

LISTING OF CLAIMS:

1. (Currently Amended) Biodegradable, thermoplastic, phase separated multiblock copolymer, comprising:

segments of a soft biodegradable prepolymer (A) having a glass transition temperature (T_g) lower than 37°C; and

segments of a hard biodegradable prepolymer (B) having a melting point temperature (T_m) of 40- 100°C, the segments being linked by a multifunctional chain-extender, wherein said chain-extender is an aliphatic chain-extender,

wherein the segments of the soft biodegradable prepolymer (A) and the segments of the hard biodegradable prepolymer (B) are randomly distributed in the copolymer.

2. (Cancelled)

3. (Previously Presented) Copolymer according to claim 1, wherein prepolymer (A) comprises ester and/or carbonate groups.

4. (Previously Presented) Copolymer according to claim 1, wherein a polyether is present as an additional prepolymer.

5. (Previously Presented) Copolymer according to claim 1, wherein pre-polymer (A) comprises reaction products of ester forming monomers selected from diols, dicarboxylic acids and hydroxycarboxylic acids.

6. (Previously Presented) Copolymer according to claim 1, wherein prepolymer (A) comprises reaction products of cyclic monomers and/or non-cyclic monomers.

7. (Previously Presented) Copolymer according to claim 6, wherein said cyclic monomers are selected from glycolide, lactide (L, D or L/D), ϵ -caprolactone, δ -valerolactone, trimethylene carbonate, tetramethylenecarbonate, 1, 5-dioxepane-2-one, 1, 4-dioxane-2-one (*para*-dioxanone) and/or cyclic anhydrides such as oxepane-2, 7-dione.

8. (Previously Presented) Copolymer according to claim 6, wherein said non-cyclic monomers are selected from succinic acid, glutaric acid, adipic acid, sebacic acid, lactic acid, glycolic acid, hydroxybutyric acid, ethylene glycol, diethyleneglycol, 1, 4-butanediol and/or 1, 6-hexanediol.

9. (Previously Presented) Copolymer according to claim 4, wherein said polyether is selected from PEG (polyethylene glycol), PEG-PPG (polypropylene glycol), PTMG (polytetramethylenether glycol) and combinations thereof.

10. (Previously Presented) Copolymer, according to claim 1, wherein prepolymer (A) is prepared by a ring-opening polymerisation initiated by a diol or di-acid compound.

11. (Previously Presented) Copolymer according to claim 9, wherein PEG is an initiator with a molecular weight of 150-4000.

12. (Previously Presented) Copolymer according to claim 1, wherein prepolymer (B) is prepared by a ring-opening polymerisation initiated by a diol or di-acid compound.

13. (Previously Presented) Copolymer according to claim 1, wherein prepolymer (B) contains a crystallisable amount of ϵ -caprolactone, δ -valerolactone, para-dioxanone, polyhydroxyalkanoate, aliphatic polyanhydride.

14. (Original) Copolymer according to claim 13, wherein pre-polymer (B) is poly- ϵ -caprolactone.

15. (Previously Presented) Copolymer according to claim 14, wherein pre-polymer (B) has an average molecular weight (M_n) of larger than 1000.

16. (Previously Presented) Copolymer according to claim 14 wherein the content of prepolymer (B) is 10-90 wt.%.

17. (Previously Presented) Copolymer according to claim 1, having an intrinsic viscosity of at least 0.1 dl/g.

18-26. (Cancelled)

27. (Previously Presented) An implant comprising a copolymer according to claim 1.

28-30. (Cancelled)

31. (Previously Presented) Copolymer according to claim 3, wherein the ester and/or carbonate groups are in combination with polyethers.

32. (Previously Presented) Copolymer according to claim 9, wherein PEG is an initiator with a molecular weight of 150-2000.

33. (Previously Presented) Copolymer according to claim 9, wherein PEG is an initiator with a molecular weight of 300-1000.

34. (Previously Presented) Copolymer according to claim 14, wherein pre-polymer (B) has and average molecular weight (M_n) of larger than 2000.

35. (Previously Presented) Copolymer according to claim 14, wherein pre-polymer (B) has and average molecular weight (M_n) of larger than 3000.

36. (Previously Presented) Copolymer according to claim 14 wherein the content of prepolymer (B) is 30-50 wt.%.

37. (Previously Presented) Copolymer according to claim 1, having an intrinsic viscosity of between 1-4 dl/g.